

What is claimed is:

1. A method of driving a film forming apparatus that discharges liquid drops by imparting vibrations to a liquid, comprising the steps of:
 - 5 controlling the vibrations by:
 - a first signal that causes liquid drops to be discharged; and
 - a second signal that does not cause liquid drops to be discharged and that imparts a shear rate to the liquid that lowers a viscosity of the liquid.
- 10 2. The method of driving a film forming apparatus, according to claim 1, wherein the second signal is transmitted before the first signal is transmitted.
3. The method of driving a film forming apparatus, according to claim 1, wherein the second signal is transmitted after the first signal is transmitted.
- 15 4. The method of driving a film forming apparatus, according to claim 1, wherein the second signal is transmitted at least once after a time when the first signal is transmitted and before a time when the first signal is transmitted again.
- 20 5. The method of driving a film forming apparatus, according to claim 1, wherein the second signal is not transmitted if the length of a time interval between a time when the first signal is transmitted and a time when the first signal is transmitted again is shorter than a predetermined length of time.
- 25 6. The method of driving a film forming apparatus, according to claim 1, wherein the

liquid is a non-newtonian, pseudoplastic fluid body.

7. A method of manufacturing a device, comprising the steps of:

forming a film on a substrate as a result of liquid drops being discharged by a

5 liquid drop discharge apparatus.

wherein the liquid drop discharge apparatus driven by the method of driving a
film forming apparatus according to claim 1.

8. A film forming apparatus, comprising:

10 a liquid drop discharge apparatus that discharges liquid drops;

a pressure generating chamber provided in the liquid drop discharge apparatus.

imparting vibrations to a liquid;

a pressure generating device provided in the pressure generating chamber; and

a control device that controls the pressure generating device such that vibrations

15 are imparted to the liquid using:

a first signal that causes the liquid drops to be discharged; and

a second signal that does not cause the liquid drops to be discharged and that

imparts a shear rate to the liquid that lowers a viscosity of the liquid.

20 9. The film forming apparatus according to claim 8, wherein the liquid is a
non-newtonian, pseudoplastic fluid body.

10. The film forming apparatus according to claim 8, wherein the pressure generating
device is a piezoelectric element that causes the liquid drops to be discharged by

25 imparting vibrations to the pressure generating chamber.

11. The film forming apparatus according to claim 8, wherein

the pressure generating device comprises a foam generating apparatus that causes the liquid drops to be discharged by generating foam in the liquid, and a control

5 apparatus that controls a driving of the foam generating apparatus such that the generated foam expands or contracts.

12. A device manufacturing apparatus, comprising:

a film forming apparatus that forms a film on a substrate as a result of liquid

10 drops being discharged from a liquid drop discharge apparatus, wherein

the film forming apparatus is the film forming apparatus according to claim 8.

13. A device manufactured by the device manufacturing apparatus according to claim

12.